

Applicants: Thomas Jessell et al.
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REMARKS

Claims 81-87 are pending in the subject application. Applicants have not added, canceled or amended any claims. Therefore, claims 81-87 are still pending and under examination.

Elections/Restrictions

Applicants acknowledge that, in the October 3, 2008 Office Action, the Examiner indicated that upon further inspection, and taking into consideration claims 81-87 added in a November 14, 2007 Amendment, original groups I and IV as identified by an August 15, 2006 restriction requirement are not patentably distinct. Accordingly, the restriction between Groups I-IV and between V-VIII as set forth in the restriction requirement are withdrawn and as such, any new claims introduced will be considered as elected if it is generic to the currently pending claims.

Non-statutory Obviousness-Type Double Patenting Rejection

Claims 81, 84 and 85 were rejected on the ground of nonstatutory obviousness-type double patenting as allegedly unpatentable over claims 1 and 3 of U.S. Patent No. 7,390,659. ("the '659 patent") Specifically, the Examiner asserted that although the claims are not identical, they are not patentably distinct from each other because both sets of claims are drawn to methods with the same steps: embryonic stem cells are first contacted with retinoic acid, a hedgehog pathway is activated, the cells are contacted with a candidate modulator (or "agent"), and a phenotypic response is determined.

In response, applicants first note that claims 1 and 3 of the '659 patent provide methods for identifying candidate agent

for treating a condition associated with motor neuron degeneration while claims 81, 84 and 85 of the subject application provide methods for identifying a modulator of Hh-dependent motor neuron differentiation.

More importantly, claims 1 and 3 of the '659 patent do not disclose any processes with the steps recited in claims 81, 84 and 85 of the subject application.

First, claims 1 and 3 of the '659 patent requires the use of single embryonic cell culture which contains a mutation of a gene selected from the group consisting of a superoxide dismutase gene and a survival motor neuron protein gene, said mutation associated with motor neuron degeneration. In contrast, claim 81 of the subject application and claim 84 dependent therefrom provide for comparison of two collections of cells, one of which is contacted with the candidate modulator. Specifically, claims 1 and 3 of the '659 patent do not disclose step (d) of claim 81 which requires "comparing the motor neuron phenotypes of the cells in the first and second collection of cells".

Claims 1 and 3 of the '659 patent also do not disclose step (d) of claim 85 which recites "determining if the candidate modulator increases the rate of motor neuron differentiation as measured by the presence of one or more feature characteristic of a motor neuron phenotype, wherein an increase in the rate of motor neuron differentiation indicates that the candidate modulator is an agonist of motor neuron differentiation". Step (e) of claims 1 and 3 of the '659 patent recite in part "determining if the agent enhances growth of the cells as compared to growth of the cells in the

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absence of the agent". The definitions of "enhance regeneration" and "growth" provided by the '659 patent do not include the rate of motor neuron differentiation. (Column 23, lines 41-47) Therefore, step (d) of claim 85 of the subject application is different from step (e) of claims 1 and 3 of the '659 patent.

Since claims 1 and 3 of U.S. Patent No. 7,390,659 do not disclose or render obvious each and every element of claims 81, 84 and 85, claims 81, 84 and 85 are patentable thereover.

Objection to the Claims

The Examiner objected to claims 83, 84, 86 and 87 as dependent upon rejected base claim, but would be allowable if rewritten in independent form including all the limitations of the base claim and any intervening claims.

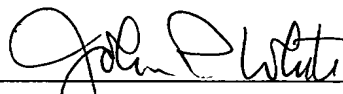
In view of the preceding remarks, it is submitted that claims 81 and 85 are allowable and claims 83 and 84, which depend on claim 81, and claims 86 and 87, which depend on claim 85, are likewise allowable. Accordingly, no change to the form of claims 83, 84, 86 and 87 is required.

If a telephone interview would be of assistance in advancing prosecution of the subject application, Applicants' undersigned attorney invites the Examiner to telephone him at the number provided below.

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No fee is deemed necessary in connection with the filing of this Communication. However, if any additional fee is required, authorization is hereby given to charge the amount of such fee to Deposit Account No. 03-3125.

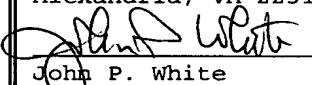
Respectfully submitted,



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